

pTNMAX (general vector)

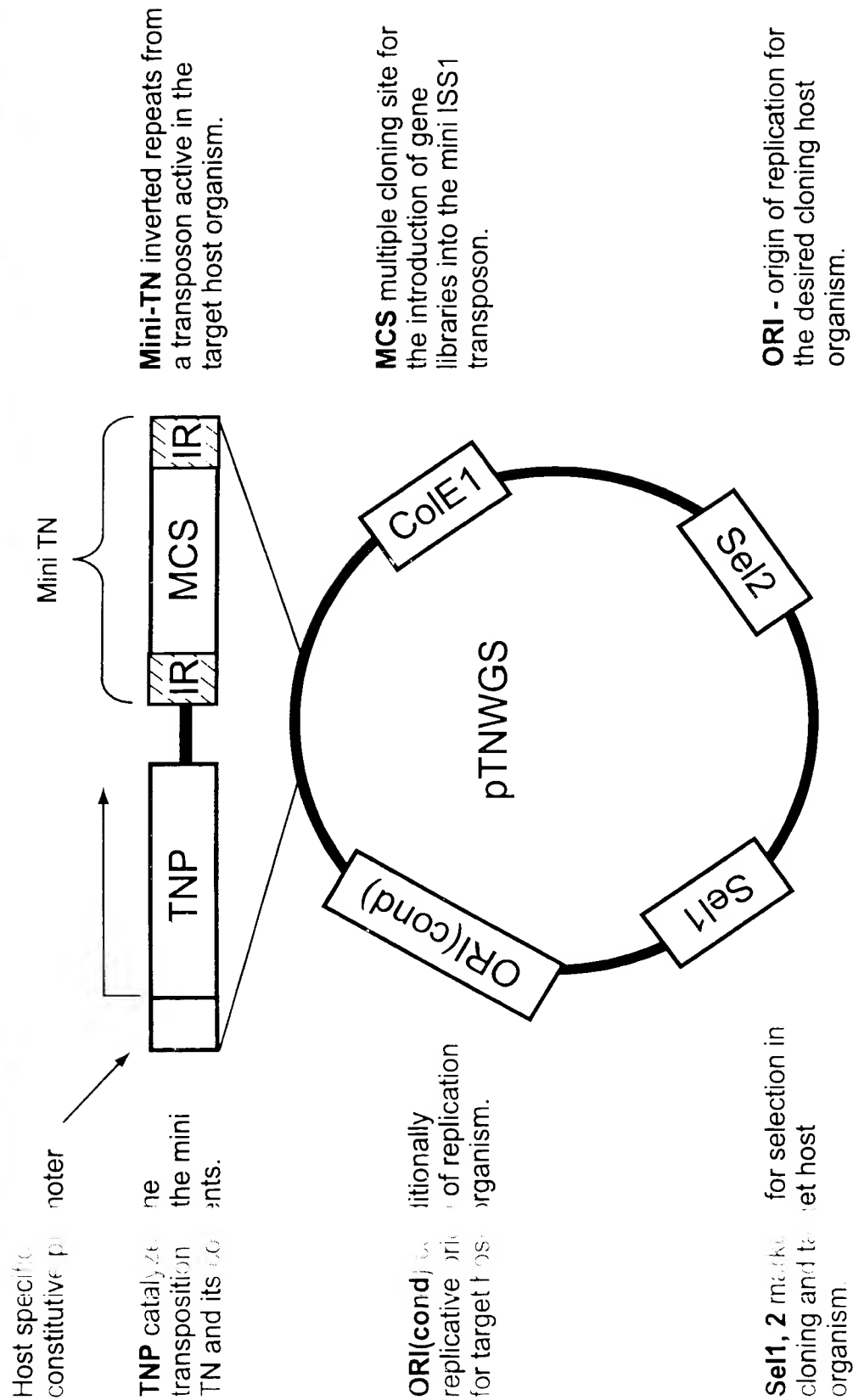


Fig. 1A

pWGS:5

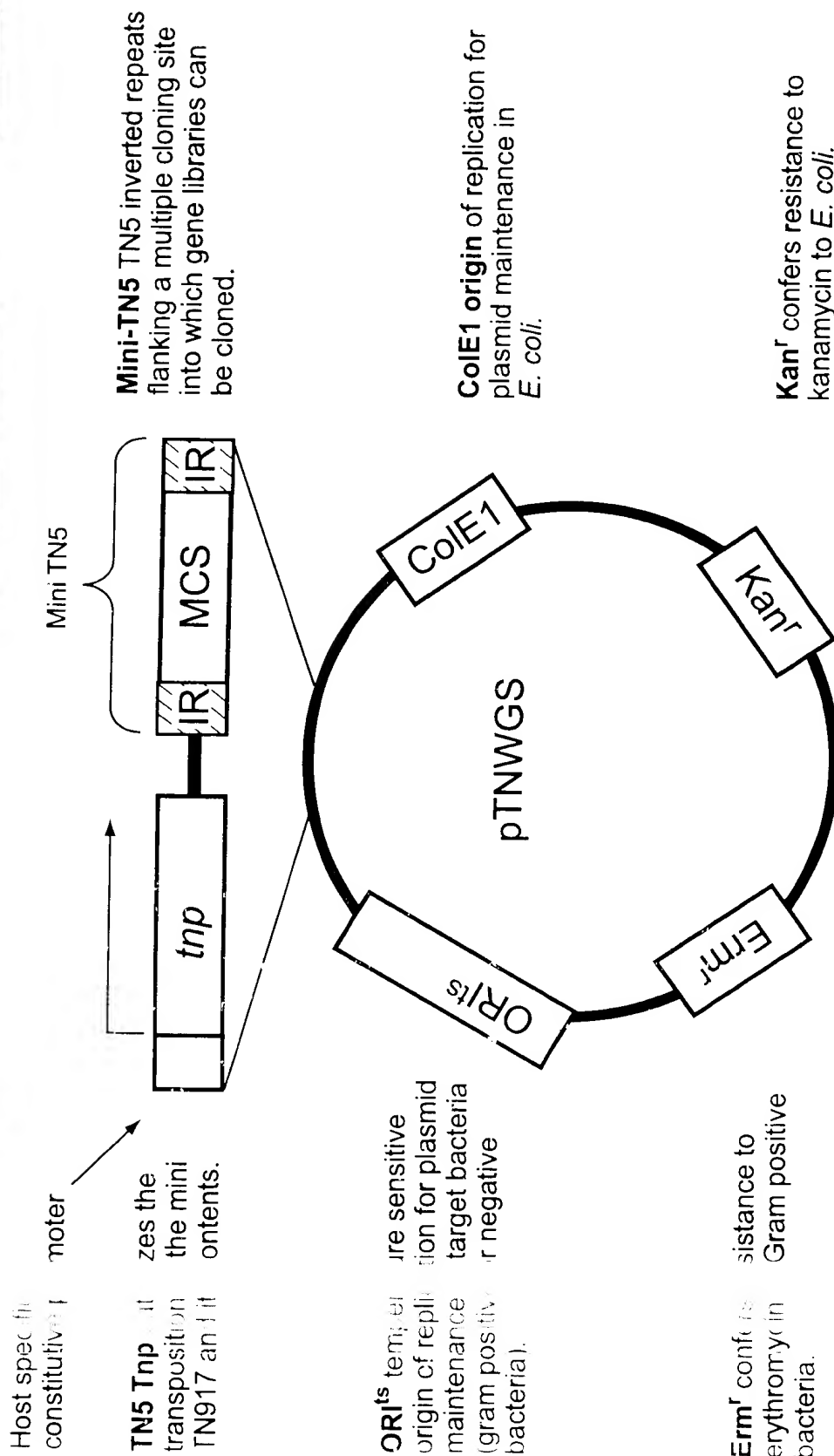


Fig. 1B

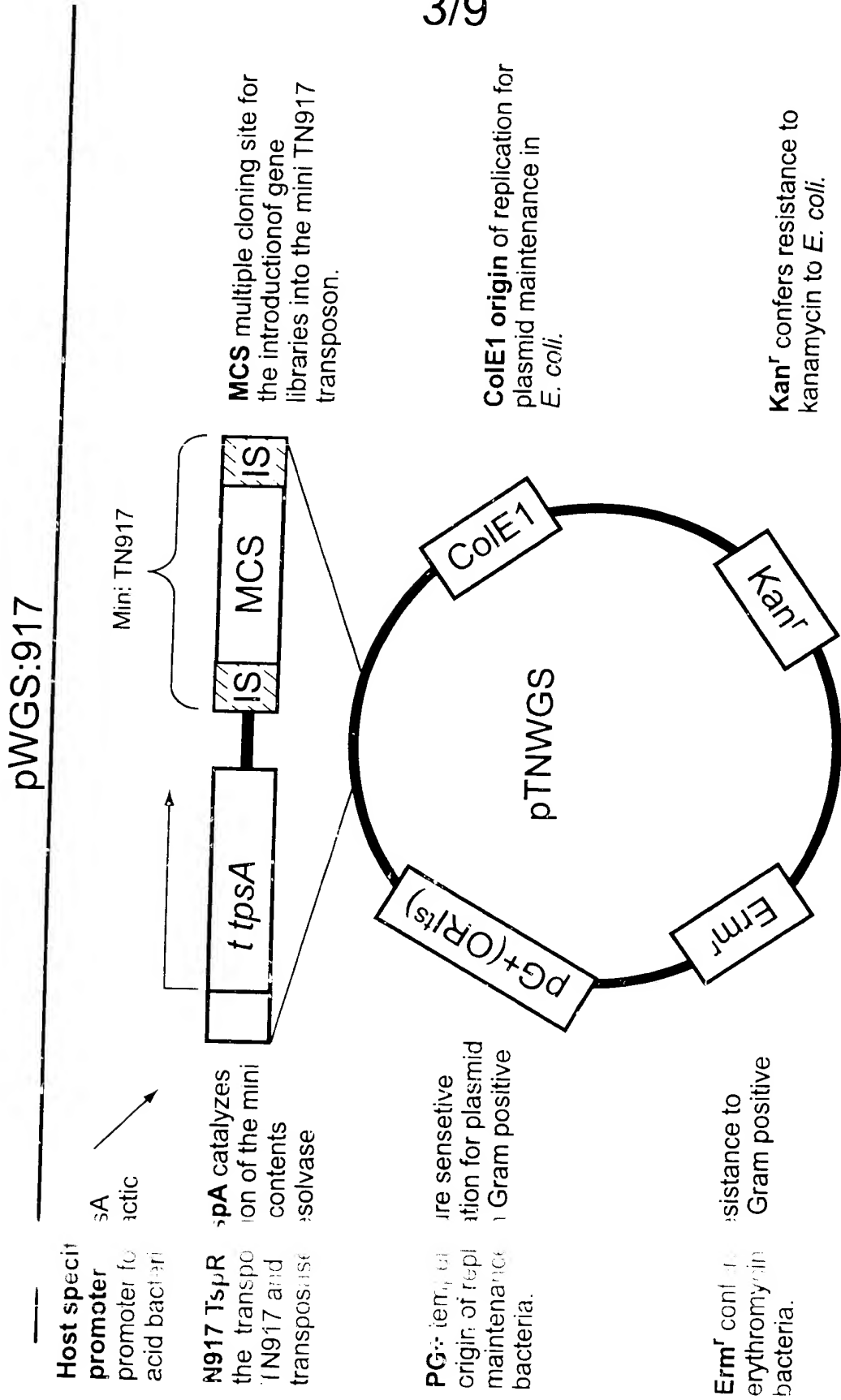


Fig. 1C

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Efficient integration into mammalian
cells using evolved *Mariner* transposons

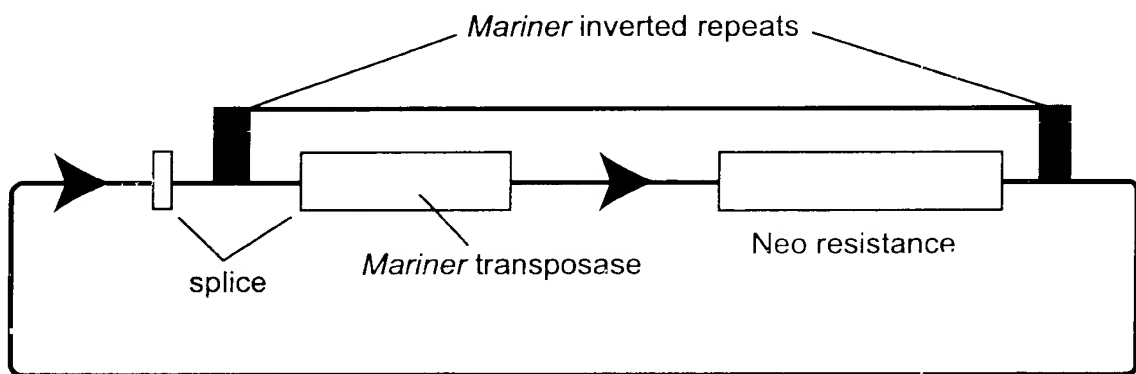


Fig. 2A

Mariner transposons for inserting loxP sites
at loci with desirable expression properties

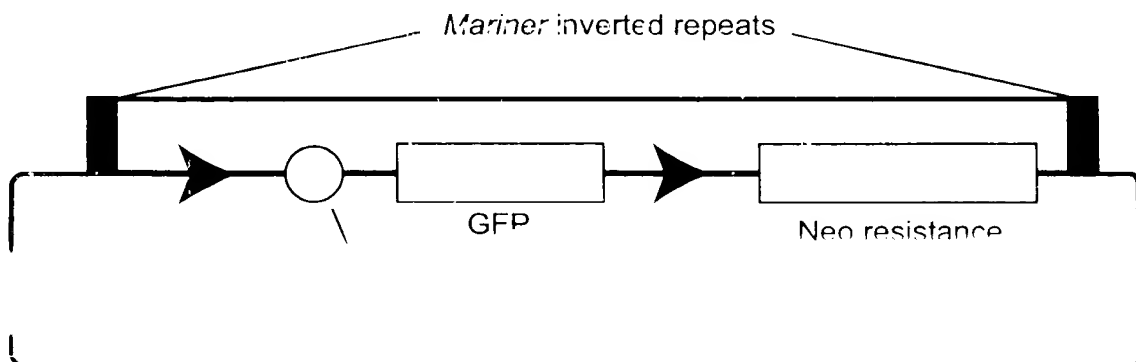


Fig. 2B

Methodology for Isolating Hosts with improved Phenotypes by Whole Genome Shuffling (WGS)

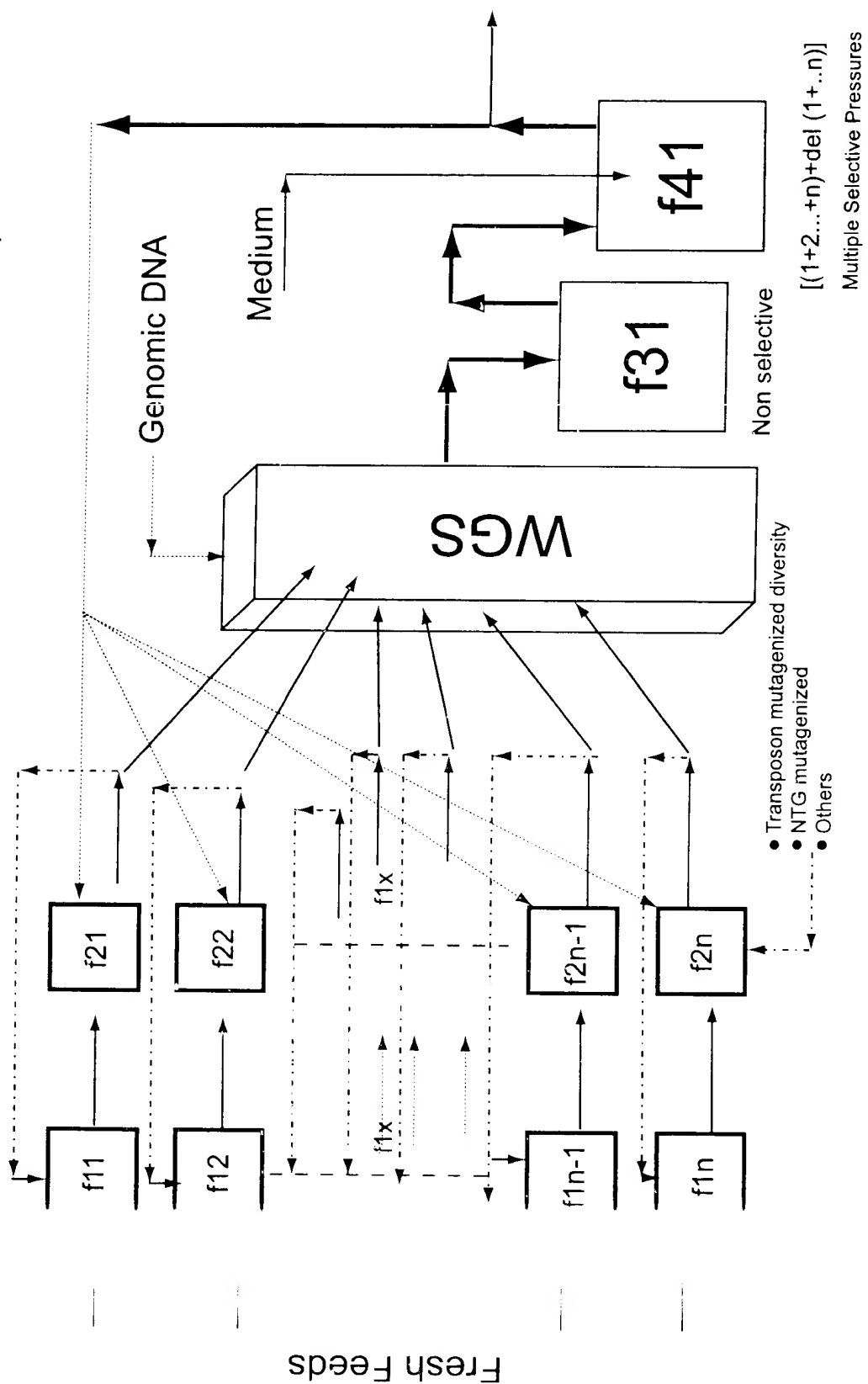


Fig. 3

Shuffling of Genomes In Vitro: Formation of transposomes

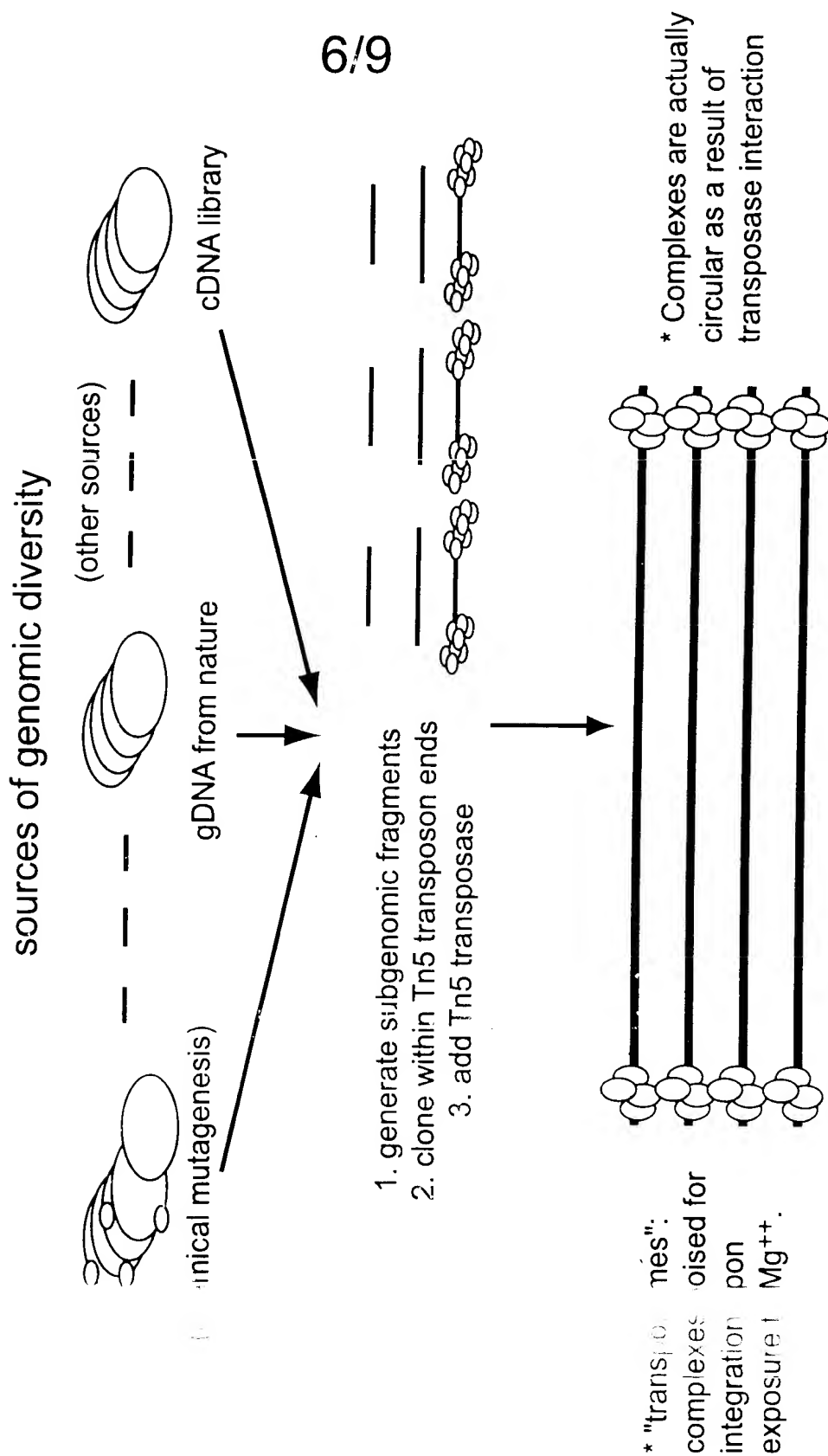


Fig. 4A

Shuffling of Genomes *In Vitro*: Breeding multiple donor genomes with a single acceptor genome

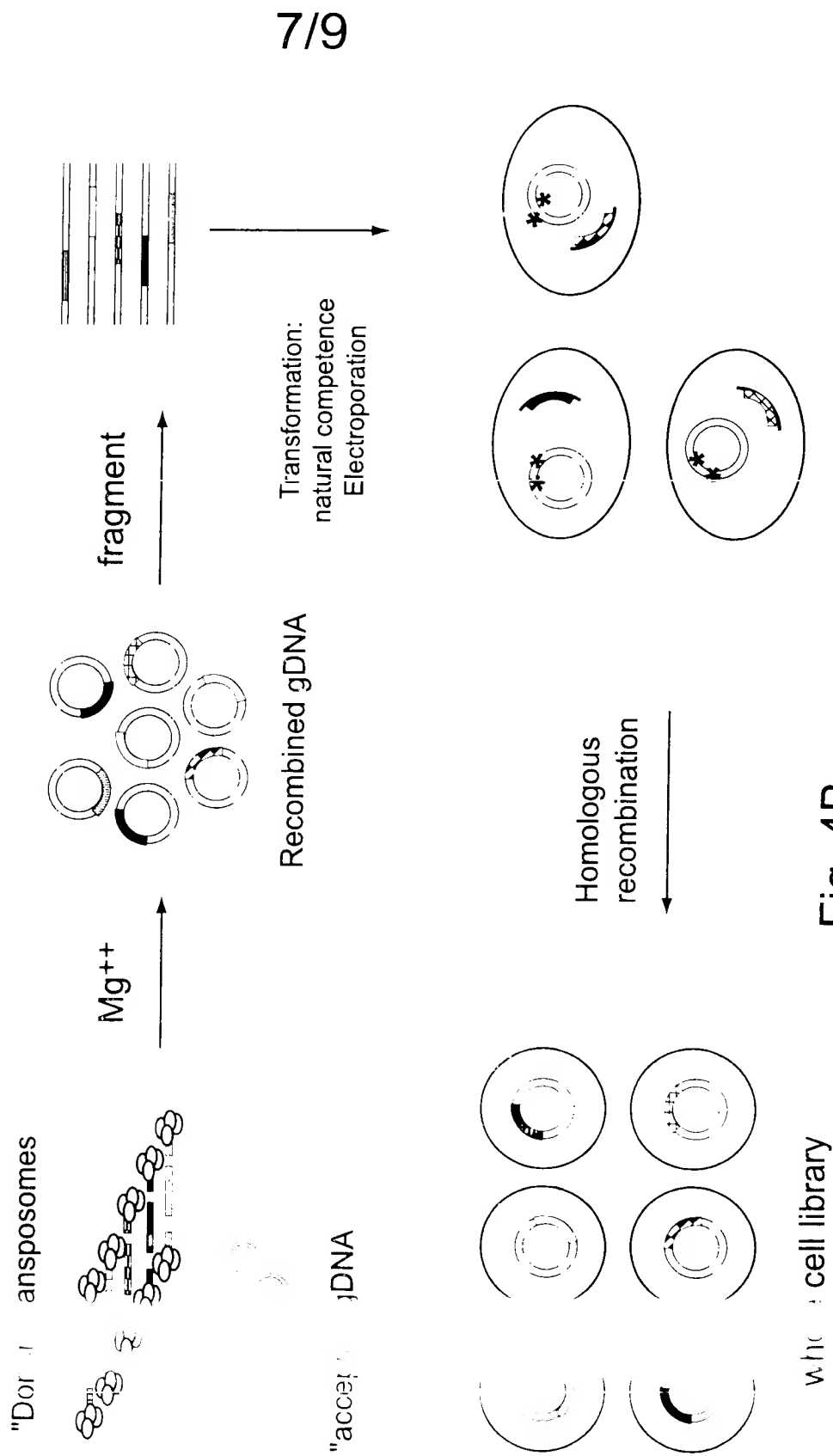


Fig. 4B

Shuffling of Genomes *In Vitro*: Breeding multiple donor genomes with multiple acceptor genome

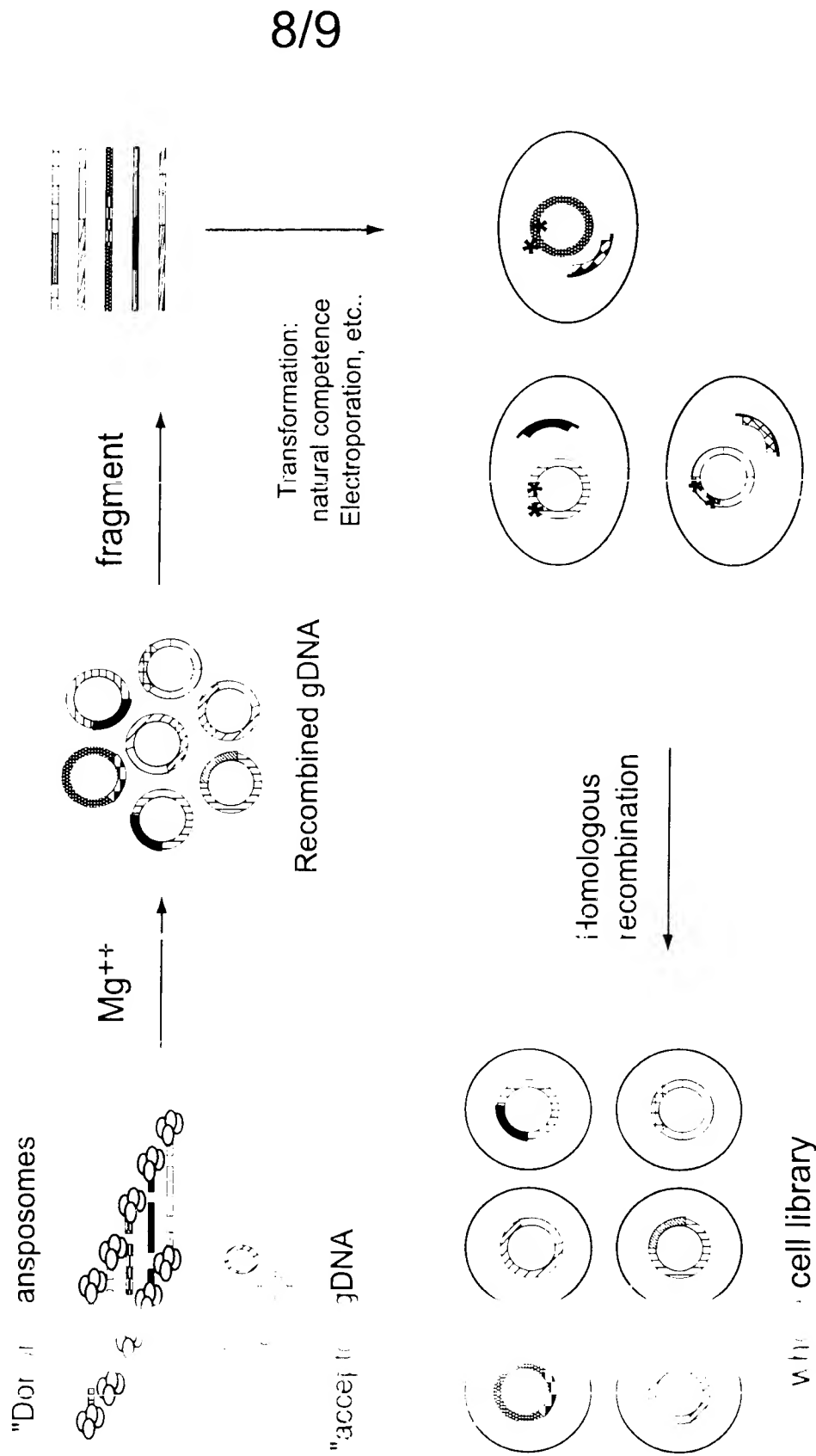


Fig. 4C

Shuffling of Genomes *In Vitro*:

Split pool recursive in vitro recombination of multiple genomes

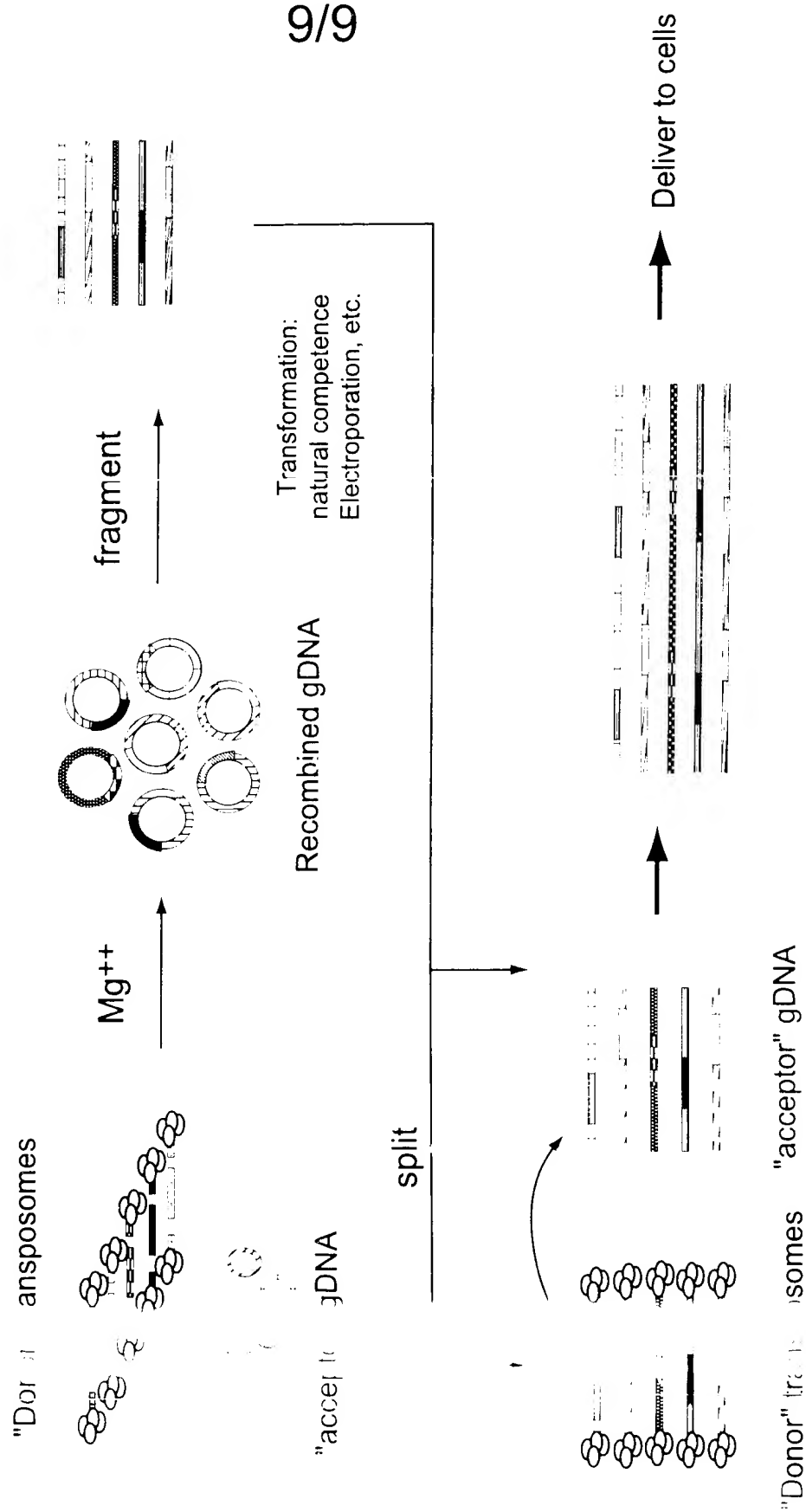


Fig. 4D